

REMARKS

Applicant confirms the election to prosecute the invention covered by claims 1-11.

Claims 12-21 are hereby withdrawn.

Claim 1 was amended to include the limitation that the insulation surrounds a wire conductor such that the insulation material has a first side facing the wire conductor and a second side facing outward. Support for this amendment is found throughout the specification and specifically shown in FIG. 1. Additionally, claim 1 was amended to include the limitation that the microcapsules are applied to the second side of the insulation material, as shown in FIG. 1 and throughout the specification, or the microcapsules are dispersed within the insulation material, as provided in paragraph [0018] and throughout the specification. Applicant submits that no new matter was added by this amendment.

New claim 22 was added to include the limitation that the insulation material is a polyimide insulation. Support for this amendment is found in paragraph [0021]. No new matter was added by this amendment.

New claims 23 and 24 were added to include the limitation that the replacement polymer is a polyimide replacement polymer. Support for this amendment is found in paragraph [0021]. No new matter was added by this amendment.

As requested by the Examiner, Applicant has amended the specification to include the suggested title “PROCESS FOR SELF-REPAIR OF INSULATION MATERIAL.”

Claims 2 and 3 are objected to because of certain informalities. Applicant has amended claims 2 and 3 as requested by the Examiner. Therefore, Applicant requests that this objection be withdrawn.

Referencing the art rejection set forth in the Office Action, claims 1, 2, and 11 that stand rejected under 35 U.S.C. 102(b) as being anticipated by DE 1,590,958. The Examiner has provided a translation of the last two paragraphs of reference DE 1,590,958 and provides a description of this reference from U.S. Patent 6,534,715. As provided in the translation and the ‘715 patent, the prior art teaches a method for self-protect electrical wire insulation by placing the insulated wire in an outer sheath that is filled with microcapsules containing liquid materials that will react when damaged or exposed to moisture. As provided by the ‘715 patent, “self-repairing is limited to the outer sheath, and no indications regarding the possibility of restoring integrity of the inner insulating layer are provided,” see column 1, lines 60-66. The current claims, as amended, provide two alternative means for repairing the insulating material using microcapsules. First, the microcapsules are applied to the outside of the insulation material that is surrounding the wire conductor. Therefore, when the microcapsules are broken, an inner layer of insulation material is repaired. If one argues that the sheath provided in the ‘958 reference is an insulation material, at best, the prior art would show a method for repairing an outer layer of insulation material. Therefore, the ‘958

reference does not anticipate the claims of the present application. Alternatively, the present application is directed to a self-repairing process where the microcapsules are dispersed within the insulation material. The '958 reference provides no teaching of dispersing the microcapsules within the insulating material. At best, the '958 reference teaches that the microcapsules are provided in a layer that only includes other microcapsules positioned between the wire conductor and the outer sheath. Since the prior art of record does not teach or disclose the presently claimed invention, Applicant submits that this rejection has been overcome and requests reconsideration and allowance of the claims.

Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 1,590,958. For the above-identified reason, Applicant submits that the independent claim upon which these claims depend is allowable. Therefore, Applicant submits that this rejection has been overcome and requests reconsideration and allowance of the claims.

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 1,590,958, as applied to claim 1 above, and further in view of WO 02/13786. For the above-identified reason, Applicant submits that the independent claim upon which these claims depend is allowable. Therefore, Applicant submits that this rejection has been overcome and requests reconsideration and allowance of the claims.

CONCLUSION

In view of the foregoing, Applicant respectfully submits that the art rejections are overcome and that the application is now in condition for allowance. Accordingly, favorable reconsideration and allowance of the application is respectfully requested. No new matter has been entered by this amendment. Excess claim fee of \$150 will be paid out of Deposit Account No. 14-0116. Please charge any additional fees necessary to maintain pendency of this patent application or credit any overpayment to Deposit Account No. 14-0116.

The Examiner is invited to contact Applicant's representative at 321-867-7214 if there are any questions regarding this Response.

Respectfully submitted,

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Date

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